

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 December 2005 (22.12.2005)

PCT

(10) International Publication Number  
**WO 2005/121086 A2**

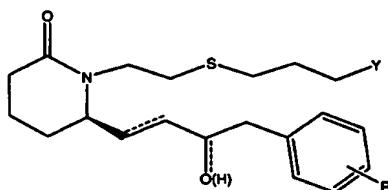
- (51) International Patent Classification<sup>7</sup>: **C07D 211/00**
- (21) International Application Number:  
**PCT/US2005/017167**
- (22) International Filing Date: **16 May 2005 (16.05.2005)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:  
60/577,361 **4 June 2004 (04.06.2004) US**
- (71) Applicant (for all designated States except US): **ALLERGAN, INC. [US/US]; 2525 Dupont Drive, Irvine, CA 92612 (US).**
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **OLD, David, W. [US/US]; 13771 Typee Way, Irvine, CA 92620 (US). DINH, Danny, T. [US/US]; 11531 College Avenue, Garden Grove, CA 92840 (US).**
- (74) Agents: **JOHNSON, Brent, A. et al.; c/o Allergan, Inc., 2525 Dupont Drive, Irvine, CA 92612 (US).**
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): **ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

## Published:

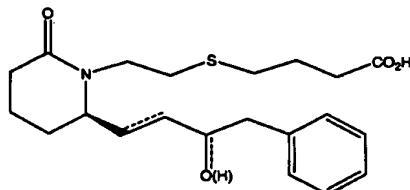
- without international search report and to be republished upon receipt of that report

[Continued on next page]

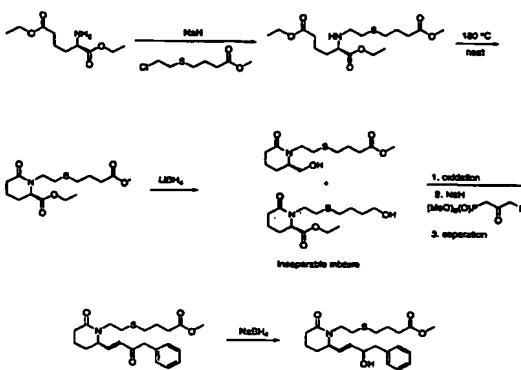
## (54) Title: 5-THIOPIPERIDINYL PROSTAGLANDIN E ANALOGS



(I)



(II)



(57) Abstract: A compound comprising (I) or a pharmaceutically acceptable salt or a prodrug thereof is disclosed herein. Y and R are described in detail herein. A compound having an  $\omega$  chain comprising (II) or a derivative thereof, or a pharmaceutically acceptable salt or a prodrug thereof, is disclosed. Derivatives, salts and prodrugs are identified and described in detail. Methods of treating certain conditions or diseases, and compositions and medicaments related thereto are also contemplated.

**WO 2005/121086 A2**



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*